

Appl. No. 10/050,476

Amendment, dated April 11, 2005

Reply to Office Action of January 25, 2005

REMARKS

Favorable reconsideration is respectfully requested in light of the above amendments and the following comments. Claim 1 has been amended to include elements of claim 9, which has subsequently been canceled. Claims 10-12 have been amended to update dependencies rendered incorrect by canceling claim 9. Claims 13-15 and 23-32 have been canceled. No new matter has been added as a result of these amendments.

Applicants respectfully traverse the Examiner's rejection of claims 1-8 and 16 under 35 U.S.C. §102(e) as anticipated by Miller et al., U.S. Patent Publication No. 2004/0079429. In order to anticipate, the cited reference must disclose each and every claimed element. Miller et al. fail to do so. In particular, claim 1 has been amended to include the limitations of claim 9, thereby rendering the rejection moot with respect to claim 1 (and claims 2-8 depending therefrom).

With respect to claim 16, Applicants note that claim 16 requires the presence of a coupling agent that is disposed within a lap joint formed between a metallic tubular member and a polymeric tubular member. The coupling agent is required to include a first functional group that provides bonding adhesion to the metallic tubular member and a second functional group that provides bonding adhesion to the polymeric tubular member. Miller et al. fail, on several levels, to disclose the claimed invention.

As an initial matter, Applicants are not sure where, if at all, Miller et al. actually disclose a lap joint. This is a term of art that would be interpreted by one of ordinary skill in the art as referring to a joint formed between two elements by overlapping one of the elements over the other of the elements over a limited distance. Perhaps the Examiner refers to Miller et al.'s disclosure of a polymeric layer disposed over a metallic braid. If so, Miller et al. fail to disclose the claimed lap joint.

Moreover, Miller et al. are silent as to any sort of coupling agent. Certainly, Miller et al. fail to describe the claimed coupling agent that includes a first functional group that provides bonding adhesion to metal and a second functional group that provides bonding adhesion to polymer. Thus, for at least these reasons, Miller et al. fail to anticipate the claimed invention. Favorable reconsideration is respectfully requested.

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Applicants respectfully traverse the Examiner's rejection of claims 1-8 and 16 under 35 U.S.C. §102(e) as anticipated by Wantink, U.S. Patent Publication No. 2004/0199109. In order to anticipate, the cited reference must disclose each and every claimed element. Wantink fails to do so. In particular, claim 1 has been amended to include the limitations of claim 9, thereby rendering the rejection moot with respect to claim 1 (and claims 2-8 depending therefrom).

With respect to claim 16, Applicants note that claim 16 requires the presence of a coupling agent that is disposed within a lap joint formed between a metallic tubular member and a polymeric tubular member. The coupling agent is required to include a first functional group that provides bonding adhesion to the metallic tubular member and a second functional group that provides bonding adhesion to the polymeric tubular member. Wantink fails to disclose the claimed invention.

Unlike Miller et al., Wantink may be considered as describing a lap joint between distal shaft section 19 and proximal shaft section 18. However, Wantink does not describe any sort of coupling agent positioned within the lap joint. Certainly, Wantink does not describe a coupling agent that includes a first functional group that provides bonding adhesion to metal and a second functional group that provides bonding adhesion to polymer. Thus, for at least this reason, Wantink fails to anticipate the claimed invention. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 9-12, 17 and 20-23 under 35 U.S.C. §103(a) as unpatentable over either Miller et al., U.S. Patent Publication No. 2004/0079429, or Wantink, U.S. Patent Publication No. 2004/0199109, further in view of Kaneko et al., U.S. Patent Publication No. 2003/016547. Claim 9 has been canceled, leaving claims 10-12, 17 and 20-23 subject to rejection.

Miller et al. and Wantink are utterly silent as to the claimed coupling agent. Neither reference describes a coupling agent having a first functional group such as a hydrolyzable functional group that provides bonding adhesion to metal and a second functional group that provides bonding adhesion to polymer. Both references are utterly silent as to coupling agents such as functionalized titanates. The Examiner relies upon Kaneko et al. to suggest these missing elements.

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However, Kaneko et al. has a U.S. filing date of March 4, 2003. As the instant application has a U.S. filing date of January 15, 2002, Applicants believe that Kaneko et al. is unavailable as prior art against the present invention. Thus, the rejection is flawed and should be withdrawn. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 13 and 24 under 35 U.S.C. §103(a) as unpatentable over either Miller et al., U.S. Patent Publication No. 2004/0079429, or Wantink, U.S. Patent Publication No. 2004/0199109, further in view of Kodas et al., U.S. Patent Publication No. 2004/0139820. Claims 13 and 24 have been canceled, thereby rendering the rejection moot. Applicants do not concede the correctness of the rejection. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 14 and 25 under 35 U.S.C. §103(a) as unpatentable over either Miller et al., U.S. Patent Publication No. 2004/0079429, or Wantink, U.S. Patent Publication No. 2004/0199109, further in view of Ragheb, U.S. Patent No. 6,730,064. Claims 14 and 25 have been canceled, thereby rendering the rejection moot. Applicants do not concede the correctness of the rejection. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 9-15, 17 and 20-26 under 35 U.S.C. §103(a) as unpatentable over either Miller et al., U.S. Patent Publication No. 2004/0079429, or Wantink, U.S. Patent Publication No. 2004/0199109, further in view of Culler, U.S. Patent No. 5,190,795. Claims 9, 13-15 and 24-26 have been canceled, leaving claims 10-12, 17 and 20-23 subject to rejection. As noted above, Miller et al. and Wantink are silent as to the claimed coupling agents. However, the Examiner has misinterpreted the chemistry described by Culler.

Evidently Culler appeared in a keyword search, as Culler references coupling agents such as titanates, zirconates and silanes. However, Culler does not describe placing such materials within a lap joint as a coupling agent as encompassed by the presently claimed invention. Rather, Culler describes these materials (see cited portion) as appropriate for forming oxides such as titanium oxides, zirconium oxides or silicon oxides upon pyrolysis (see column 3, lines 34-38). Pyrolysis is a process in which the material is subjected to high heat. Culler uses pyrolysis in order to form an oxide to which subsequent materials such as adhesives may be

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secured. Culler describes a chemistry substantially different than that contemplated by the claimed invention.

Moreover, Culler does not describe the specific functionalized titanates recited in the rejected claims. Further, Applicants note that claim 16 (from which claims 20-23 depend) requires that the "coupling agent maintains bonding adhesion between the metallic tubular member and the polymeric tubular member when in use". This would seem to imply that the coupling agent remains in its initial form. Oxidizing the coupling agent (as taught by Culler) chemically changes the coupling agent, and thus Culler would not appear to meet this claimed limitation. Thus, as the combination of either Miller et al. or Wantink with Culler fails to describe each and every claimed element, the *prima facie* obviousness rejection is flawed and should be withdrawn.

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

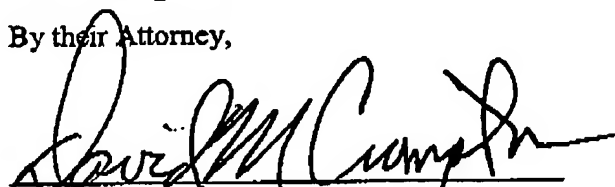
Respectfully submitted,

Lixiao Wang et al.

By their Attorney,

Date: _____

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